

IN THE CLAIMS

What is claimed is:

- 1 1. A system for maintaining security and gathering data for a plurality of vehicles
2 comprising:
3 a vehicle activity module for each of said vehicles, said vehicle activity module including
4 a wireless transmitter, sensors and a key container;
5 a central computer having a database for data storage, said central computer being in
6 wireless communication with each of said vehicle activity modules;
7 key ID tags, which are attached to vehicle keys; and
8 personal ID cards which are issued to sales, maintenance and service personnel;
9 wherein:
10 information read from personal ID cards by said sensors is transmitted to said central
11 computer for authorization of access and recording of access activity; and
12 information read from key ID tags attached to keys by said sensors is transmitted to said
13 central computer for storage and analysis.
- 1 2. The system of claim 1, wherein:
2 said vehicle activity modules operate in sleep mode until awakened by an event to report
3 activity.
- 1 3. The system of claim 2, wherein:
2 said event is chosen from a group of events consisting of sales events, non-sales events
3 and intrusion events.
- 1 4. The system of claim 1, wherein:
2 said vehicle activity modules operates in sleep mode until awakened at periodic
3 programmed intervals to report on status.
- 1 5. The system of claim 2, wherein:
2 said key ID tag information includes the presence or absence of said key ID tags and
3 therefore of said keys in said vehicle activity modules.

- 1 6. The system of claim 4, wherein:
2 said status which is reported includes a health check.
- 1 7. The system of claim 1, further comprising:
2 rechargeable battery pack, which provides energy to said vehicle activity modules.
- 1 8. The system of claim 7, wherein:
2 solar chargers which recharge said rechargeable battery pack.
- 1 9. The system of claim 1, further comprising:
2 an intrusion sensor.
- 1 10. The system of claim 1, wherein:
2 said sensors include an ID reader.
- 1 11. The system of claim 10, wherein:
2 said ID reader is an RFID reader.
- 1 12. The system of claim 10, wherein:
2 said ID reader is key tag/ID reader.
- 1 13. The system of claim 1, wherein:
2 said information from said ID cards and key ID tags is used to generate alerts and theft
3 alarms.
- 1 14. The system of claim 1, wherein:
2 said information are from said ID cards and key ID tags is used to generate reports for
3 inventory and administrative planning.
- 1 15. The system of claim 1, wherein:
2 said information are from said ID cards and key ID tags is used to request access to

3 vehicles.

1 16. A vehicle activity module for maintaining security and data gathering for a plurality of
2 vehicles, to be used in cooperation with a central computer, personal ID cards, and key ID tags
3 attached to vehicle keys, the vehicle activity module comprising:

4 a housing having a releasable key compartment, said housing being securely mounted to
5 some portion of each said plurality of vehicles;

6 at least one ID reader by which ID information can be scanned from said personal ID
7 cards and key ID tags; and

8 a wireless transmitter by which said personal ID card information and key ID tag
9 information can be transmitted to a central computer for storage and analysis.

1 17. The vehicle activity module of claim 16, wherein;

2 said key ID tag information includes the presence or absence of said key ID tags and
3 therefore of said keys within said vehicle activity module.

1 18. The vehicle activity module of claim 16, wherein;

2 said vehicle activity modules operates in sleep mode until awakened by an event to report
3 activity.

1 19. The vehicle activity module of claim 16, wherein;

2 said vehicle activity modules operates in sleep mode until awakened at periodic
3 programmed intervals to report on status.

1 20. The vehicle activity module of claim 16, wherein;

2 said status which is reported includes a health check.

1 21. The vehicle activity module of claim 16, further comprising:

2 rechargeable battery packs, which serve to power said vehicle activity modules.

1 22. The vehicle activity module of claim 21, further comprising;
2 solar chargers which recharge said rechargeable battery packs.

1 23. The vehicle activity module of claim 16, further comprising;
2 an intrusion alarm.

1 24. The vehicle activity module of claim 16, wherein;
2 said ID reader is a magnetic strip reader.

1 25. The vehicle activity module of claim 16, wherein;
2 said ID reader is an RFID reader.

1 26. The vehicle activity module of claim 16, wherein:
2 said ID reader is key tag/ID reader.

1 27. A method for maintaining security for a plurality of vehicles, to be used in cooperation
2 with a central computer, personal ID cards, and key ID tags attached to vehicle keys, the method
3 comprising:
4 A) attaching a vehicle activity module to each of said vehicles, said vehicle activity
5 module including a wireless transmitter, sensors and a key container;
6 B) providing a central computer having a database for data storage, said central computer
7 being in wireless communication with each of said vehicle activity modules;
8 C) providing that said vehicle activity module remains in sleep mode until awakened; and
9 D) transmitting a wireless signal from said vehicle activity modules to said central
10 computer when awakened.

1 28. The method for maintaining security of claim 27, wherein:
2 said vehicle activity module of C) operates in sleep mode until awakened by an event to
3 report activity.

- 1 29. The method for maintaining security of claim 28, wherein:
2 said event is chosen from a group of events consisting of sales events, non-sales events
3 and intrusion events.
- 1 30. The method for maintaining security of claim 27, wherein:
2 said vehicle activity module of C) operates in sleep mode until awakened at periodic
3 programmed intervals to report on status information.
- 1 31. The method for maintaining security of claim 30, wherein:
2 said status information which is reported includes a health check..
- 1 32. The method for maintaining security of claim 27, wherein:
2 said sensors include a key ID tag sensor, which reads key ID tag information concerning
3 said keys upon opening or closing said key container.
- 1 33. The method for maintaining security of claim 27, wherein:
2 said sensors include an RFID reader.
- 1 34. The method for maintaining security of claim 27, wherein:
2 said sensors include a key tag/ID reader.
- 1 35. The method for maintaining security of claim 27, wherein:
2 said transmission of D) activates one or more alarms by the central computer upon
3 receiving said transmission from said vehicle activity module.
- 1 36. The method for maintaining security of claim 35, wherein:
2 said one or more alarms include audio alarms on the grounds, audio alarms on the
3 vehicle, notification to local police or security forces, visual disturbance warning, alerts by
4 internet and cell phone message to personnel.

- 1 37. The method for maintaining security of claim 29, wherein:
2 said transmission indicates a sales event, and demo drive time is automatically recorded
3 in said central computer, and if a determination is made that the drive time exceeds a permitted
4 limit, one or more alarms are sounded.
- 1 38. The method for maintaining security of claim 37, wherein:
2 said determination of exceeded time limit is determined by sensing the length of time that
3 said key is absent from said key container.
- 1 39. The method for maintaining security of claim 29, wherein:
2 said transmission indicates a non-sales event, and a determination of exceeded time limit
3 is determined by sensing the length of time that said key is absent from said key container, and if
4 said time limit is exceeded, one or more alarms may be sounded.
- 1 40. The method for maintaining security of claim 29, wherein:
2 said transmission indicates an intrusion event.
- 1 41. The method for maintaining security of claim 40, wherein:
2 said key tag is checked whether it is the correct key when the key container is opened.
- 1 42. The method for maintaining security of claim 41, wherein:
2 if the key is correct and the event takes places during normal operating hours, the time
3 that the key is missing from the key container is recorded and determined if returned within the
4 maximum demo drive time limit, and if it is not, one or more alarms are activated.
- 1 43. The method for maintaining security of claim 41, wherein:
2 if the key is not correct, one or more alarms are activated.
- 1 44. The method for maintaining security of claim 41, wherein:
2 if the key is correct and the event does not takes places during normal operating hours,
3 the time that the key is missing from the key container and the person ID who last accessed is

4 recorded and transmitted on an accelerated basis, and if not returned within an accelerated time
5 limit, one or more alarms are activated.

1 45. The method for maintaining security of claim 27, wherein:
2 said activity sensors include an intruder sensor, which if activated, cause one or more
3 alarms to be activated.

1 46. The method for maintaining security of claim 27, wherein:
2 said transmission of D) is a regularly timed signal, which if not received by said central
3 computer, cause one or more alarms to be activated.

1 47. The method for maintaining security of claim 27, wherein:
2 said transmission of D) is a signal requesting access which is received by said central
3 computer and which returns an authorization signal which unlocks said key container.

1 48. A method for collecting and analyzing data and on vehicle access for a plurality of
2 vehicles, to be used in cooperation with a central computer, personal ID cards, and key ID tags
3 attached to vehicle keys, and vehicle data, the method comprising:
4 A) attaching a vehicle activity module to each of said vehicles, said vehicle activity
5 module including a wireless transmitter, activity sensors and a key container;
6 B) providing a central computer having a database for data storage, said central computer
7 being in wireless communication with each of said vehicle activity modules;
8 C) providing that said vehicle activity module remains in sleep mode until awakened; and
9 D) transmitting a wireless signal from said vehicle activity modules to said central
10 computer at the time of awakening.

1 49. The method for collecting and analyzing data of claim 48, wherein:
2 said vehicle activity module of C) operates in sleep mode until awakened by an event to
3 report activity.

- 1 50. The method for collecting and analyzing data of claim 49, wherein:
2 said event is chosen from a group of events consisting of sales events, non-sales events
3 and intrusion events.
- 1 51. The method for collecting and analyzing data of claim 48, wherein:
2 said vehicle activity module of C) operates in sleep mode until awakened at periodic
3 programmed intervals to report on status information.
- 1 52. The method for collecting and analyzing data of claim 48, wherein:
2 said activity sensors include a key ID tag sensor, which reads key ID tag information
3 concerning said keys upon opening or closing said key container.
- 1 53. The method for collecting and analyzing data of claim 48, wherein:
2 said transmission indicates a sales event, and sales event data including personal ID data
3 and key tag ID data are recorded in said central computer, along with vehicle data, which can be
4 organized into reports for sales and inventory status and planning, sales personnel periodic
5 reports and management projections.
- 1 54. The method for collecting and analyzing data of claim 48, wherein:
2 said transmission indicates a non-sales event, and non-sales event data including personal
3 ID data and key tag ID data are recorded in said central computer, along with vehicle data, which
4 can be organized into reports for personnel periodic reports, inventory planning and management
5 analysis.
- 1 55. The method for collecting and analyzing data of claim 48, wherein:
2 said transmission indicates an intrusion event, and event data are recorded in said central
3 computer, along with vehicle data, which can be organized into reports for security planning and
4 police reports.